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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,734	08/25/2003	Joji Iida	42530-5500	2154

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EXAMINER

JOERGER, KAITLIN S

ART UNIT	PAPER NUMBER
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3653

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/647,734

Applicant(s)

IIDA, JOJI

Examiner

Kaitlin S. Joerger

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/25/03
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 4 are rejected under 35 U.S.C. 102(e) as being anticipated by Abe et al. (US Patent 6,715,671).

The applied reference has a common assignee and inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Abe et al. teaches a compact banknote dispensing device, comprising: a banknote supply storing section, 11, for storing one or more banknotes; a banknote transporting unit, 4, for transporting a stored banknote, the banknote transporting unit being adjacent the storing section, the transporting unit includes rollers defining a U-shaped path, see figure 1; a banknote length detection unit, 188; and a dispensing slot, 5, for dispensing the banknotes.

The U-shaped transporting path includes a first roller, 19, a guiding roller, 23, and a second transporting roller, 27, the rollers defining a U-shaped transporting path. The length

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sensor, 188, is disposed adjacent the U-shaped path. The banknote length sensor unit is adjacent to the U-shaped transporting path, the banknote length sensor comprising a first banknote sensor, 181, and a second banknote sensor, 183. The first banknote sensor is adjacent the first roller, the second sensor is disposed between the guiding roller and second roller.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Ito et al. (US Patent 4,972,958).

Ito et al. teaches a banknote supply storing section, 19-21; a banknote transporting unit adjacent the storing section for receiving a stored banknote from the banknote storing section; wherein the transporting units includes rollers defining a U-shaped path, see figures 1 and 2; a banknote length detection unit, 11, a dispensing slot 2. Ito further teaches that the banknote supply storing section is inclined at an angle, see figures 1 and 2.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 18 are rejected under 35 U.S.C. 103(a) as being obvious over Abe et al. (US Patent 6,715,671) in view of Mochizuki et al. (US Patent 6,536,761) in view of JP 0609241 A, as cited by the applicant.

The applied Abe et al. reference has a common inventor and assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention “by another”; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Abe et al. teaches a banknote supply storing section, 11; a banknote discharging unit, 3, for discharging the banknote from the banknote supply storing section; and a banknote transporting unit, 4; the transporting unit includes a first roller, 21, and a first pressing roller, 20, disposed adjacent the storing section, the rollers arranged so that their axes of rotation are parallel to each other to conduct a single discharged note between them away from the discharging unit.

He does not teach that the banknote transporting unit transports the banknote at a second speed, which is higher than the first speed of the discharging unit, but the JP-0609241 A patent does teach such a feature. The JP ‘241 patent teaches a low-speed feed roller with a clutch a and

a high-speed transporting roller for transporting banknotes away from the storing section, see paragraphs 0002 through 0006.

It would have been obvious to one of ordinary skill in the art to alter the transporting speed of the transports rollers of Abe et al. so that they had a faster speed than the feed rollers as taught by the JP '241 patent, in order to ensure that there was a gap between the banknotes being fed from the storing section so that the length of the notes could be correctly determined by the sensors and control unit.

Abe et al. also does not teach that the first roller and pressing roller have radial projections, wherein the radial projection of the first roller are interposed in the radial projections of the pressing rollers. Michizuki et al. does teach this feature, see figure 7 and column 3, lines 39+.

It would have been obvious to one of ordinary skill in the art to design the first roller and pressing roller of Abe et al. so that they were comprised of radial projections, where the radial projection of the rollers are interposed between the radial projections of the other rollers in order to deform the banknote so that the note does not become wound around the feed roller during transport. Further it would have been obvious to include six radial projection on both the drive roller and the pressing roller in order to create more of a wavy shape and to ensure that the bill travels along the transport path and does not become wound around the drive roller.

With regard to claims 6-17, Abe et al. further teaches a first sensor, 181, and second sensor, 184, for detecting the presence of a banknote; and a control unit, 196, for receiving and processing the first signal and the second signal, to determine whether the banknote has successfully passed through the transporting unit. A temporary storage unit, 16, for receiving a

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predetermined number of discharged banknotes, wherein the predetermined number could be any number, including four and ten, the storage unit being arranged adjacent the transporting unit, see figure 1. The second sensor, 184, is interposed between the banknote transporting unit and the temporary storing section to detect the passage of the discharged banknote into the temporary storing section. The device of Abe et al. further includes a dispensing slot, 5, and a slider member, 61, for pushing banknotes in the temporary storage section out through the dispensing slot.

The device further comprises a third sensor, 182, for detecting the presence of one or more dispensed banknotes and to determine whether the banknotes have been taken by a user. The first, second, and third sensors are photoelectric sensors.

The device further comprises a rejected banknote storing section, 118, a diverting unit, 6, and a fourth sensor, 183, for detecting the presence of a banknote, the first and fourth sensor pass signals to the control unit, the control unit determining the length of the banknote, and activating the diverting unit to the non-diverting position when the length is acceptable; and a fifth sensor 185, for detecting passage of a banknote into the rejected storing section. The fourth and fifth sensors are photoelectric sensors. Both the storing section and rejected storing section are located within a safe, 2.

The control unit measures the time difference from the fourth sensor detecting and the first sensor non-detecting in order to measure the length on the banknote, see column 9, lines 47+.

Claim 19 is rejected under 35 U.S.C. 103(a) as being obvious over Abe et al. (US Patent 6,715,671) in view of JP-09060241.

The applied reference has a common assignee and inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention “by another”; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Neither Abe et al. nor the JP-0609241 Patent teach a method for discharging and dispensing a banknote, however, it would have been obvious to one of ordinary skill in the art to perform the method steps claim 19, when using the device taught by the combination of the Abe et al. and the JP ‘241 patent in its usual and expected fashion.

Specifically, Abe et al. teaches a banknotes discharging device, a banknote transporting device, a banknote length sensor, a control unit to compare the sensed banknote length to determine if a banknote is acceptable, a temporary storing section, and a diverting and reject section. The JP ‘241 patent teaches a discharge device and a transporting device which transports the banknotes at a speed faster than that which they are discharged.

It would have been obvious to combine the high speed transporting device of the JP '241 patent with Abe et al., as outline in the above paragraphs, in order to ensure that there was a gap between the banknotes being fed from the storing section so that the length of the notes could be correctly determined by the sensors and control unit.

While neither of these patents teach a method for discharging and dispensing a banknote, it would have been obvious to one of ordinary skill in the art to perform the method steps of claim 19 when using the apparatus taught by the combination of Abe et al. and the JP '241 patent in it usual and expected fashion as the combination teaches a device for dispensing and discharging banknotes that performs all of the steps of the claimed method.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references listed on the PTO-892 form are other references that teach banknote dispensing devices with some of the features of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaitlin S. Joerger whose telephone number is 571-272-6938. The examiner can normally be reached on Monday - Friday 9-5.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on 571-272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ksj

3 March 2006



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